STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Commonwealth Edison Company	:	
Petition for General Increase in Delivery Service Rates	:	Docket No. 10-0467
	:	

Rebuttal Testimony of
Scott J. Rubin

on Behalf of
the People of the State of Illinois and
the Citizens Utility Board

AG/CUB Exhibit 11.0

December 30, 2010

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I. Introduction and Summary

Q. Please state your name.

A. My name is Scott J. Rubin. I previously filed direct testimony on behalf of the Office of Attorney General ("AG") and the Citizens Utility Board ("CUB"), which was identified as AG/CUB Exhibit 6.0.

Q. What is the purpose of your rebuttal testimony?

A. I will respond to portions of the rebuttal testimonies filed by Commonwealth Edison Company ("ComEd" or "Company") witnesses Hemphill, Lowry, Alongi, and Garcia in ComEd Exhibits 46.0, 47.0, 49.0, and 50.0, respectively. I also will respond to portions of the direct testimonies filed by Commercial Group ("CG") witness Baudino (CG Exhibit 1.0), Natural Resources Defense Council ("NRDC") witnesses McDermott and Cavanagh (NRDC Exhibits 1.0 and 2.0, respectively), and Illinois Industrial Energy Consumers ("IIEC") witness Stowe (IIEC Exhibit 3.0).

II. Response to ComEd Witness Hemphill

Q. Did you review the rebuttal testimony of ComEd witness Ross Hemphill (ComEd Exhibit 46.0)?

A. Yes.

Q. On page 6, lines 115-119, Mr. Hemphill states that ComEd's residential rate design proposal would result in "customer power supply and consumption decisions … [being] based on the real cost of delivery." Do you agree?

A. No, I do not agree. ComEd's proposed residential rate design would treat distribution costs that are related to consumer demand for electricity as being related solely to the number of customers. ComEd proposes very high customer charges and artificially low per-KWH charges. This proposal to drastically increase its customer charge bears no relationship whatsoever to the reasons why various facilities are sized and installed on ComEd's system. Every ComEd cost-of-service study produced in this case recognizes that there are substantial demand-related costs incurred to serve residential customers. But ComEd's pricing proposal treats those costs as being related solely to the number of customers, not to those customers' demands for electricity.

Q. On page 9, lines 201-202, Mr. Hemphill claims that his proposal is reasonable because the customer charge would recover costs "which do not vary with monthly energy use." Is that a relevant factor in properly designing retail utility rates?

A. No, it is not. Utilities make long-lived investments based on long-term projections of customer location, demand, and consumption. One would not expect utility costs to vary significantly with monthly energy consumption. But that does not mean that energy consumption has nothing to do with the utility's incurrence of costs. Indeed, most aspects of ComEd's distribution system – including facilities such as substations and transformers – are based on ComEd's need to serve consumers' demands for electricity

over the life of those facilities (which is measured in decades). Utility pricing must send customers an appropriate price signal that increases in their energy demand result in increases in costs to the system. Thus, as I discussed in my direct testimony, reputable utility economists for many decades have rejected the notion of pricing retail utility services based on short-run costs. Customers must see prices that reflect the fact that increased consumption results in increased costs to the system. ComEd's pricing proposal fails to do so.

Q. On page 12, lines 291-296, Mr. Hemphill states that ComEd's residential rate design proposal is consistent with the principle of gradualism. Do you agree?

A. No, I do not agree. As I demonstrated in my direct testimony, ComEd's proposal would result in some residential customers facing rate increases of 60%, 80%, or even 100%, even though overall rates would increase by about 20% under ComEd's proposed revenue requirement. Imposing increases on some customers of four or five times the average rate increase – for no other reason than to further the utility's notion of an appropriate rate design policy or theory – is grossly inconsistent with the principle of gradualism.

Q. On pages 14-15, lines 321-360, Mr. Hemphill claims that most of ComEd's "delivery service costs are based not upon the amount of electricity used (kWh) but rather upon the maximum rate at which electricity is used (kW)." He then posits that customers with different levels of energy consumption "could very well" place the same maximum demands on the system, and that "it is quite possible for two

customers to use different amounts of kWhs but be responsible for equal shares of fixed costs." How do you respond?

A. Mr. Hemphill's theory is interesting, but he did not provide any data or analysis to determine whether, in fact, this occurs within ComEd's residential class of customers. Further, he does not consider the tremendous diversity within ComEd's residential class – ranging from customers who use a few hundred KWH per month to those who use thousands of KWH per month.

For example, using ComEd's actual billing data for the largest residential subclass (SF No Heat), 10% of customers use less than 3,600 KWH per year (or 300 KWH per month). At the high end, another 10% of customers use more than 16,000 KWH per year (an average of more than 1,300 KWH per month). It would be highly unlikely that these two types of customers would have the same maximum energy demands. If the 16,000 KWH customer was a perfect energy consumer – that is, it used exactly the same amount of electricity each hour of the year – it would have a peak demand of 1.83 KW.[1] In reality, a customer of that size would be expected to have a peak demand of at least 7 or 8 KW.[2]

In contrast, I analyzed ComEd's billing data for the more than 200,000 SF No Heat customers who used 3,600 KWH or less per year. One-half of those customers –

[1] 16,000 KWH per year ÷ 8,760 hours per year = 1.83 KW.
[2] My analysis of ComEd's billing data shows that the median customer using more than 16,000 KWH per year had energy consumption in the customer's peak month of 2,639 KWH. If the customer had a perfect load factor – which would be impossible – that would imply a peak hourly demand of 3.67 KW (2,639 KWH per month ÷ 720 hours per month = 3.67 KW). In reality, I would expect a typical residential customer to have a load factor of 50% or less, resulting in a peak hourly demand of 7.3 KW or more.

more than 100,000 customers – used 260 KWH or less during their peak summer month. It would be exceedingly unlikely for a customer using 260 KWH during an entire summer month to have a demand of 7 or 8 KW in any one hour. Indeed, at that level of demand, the customer would consume an entire month's worth of electricity in just 35 or 40 hours, out of 720 hours in the entire month.

In fact, looking at the peak summer month's demands for high-use customers illustrates the absurdity of Mr. Hemphill's assertion. Approximately 9% of ComEd's SF No Heat customers used more than 3,600 KWH in their peak summer month. That is, these customers used more electricity in one month than more than 200,000 SF No Heat customers used in an entire year. Again, it is very difficult to believe that such diverse customers would have the same peak hourly demands.

Q. Why is this important?

A. This is important because it directly undercuts ComEd's rationale for placing most demand-related costs in the customer charge. ComEd's residential class has customers of vastly different sizes that place very different demands on ComEd's energy distribution system. It cannot just be assumed, as does Mr. Hemphill, that each customer is responsible for the same level of demand and, therefore, that each customer should bear the same proportion of demand-related costs. We know that this is not the case – large residential energy users will place much higher demands on the system than will small energy users. Placing demand-related costs in a per-KWH charge (as they are now) requires those who are likely to cause the cost to be incurred to pay the cost through their

rates. ComEd's proposal fails to do so and would improperly require low-use customers to subsidize high-use customers within the same residential subclass.

Q. Does anything in Mr. Hemphill's testimony cause you to change the conclusions and recommendations in your direct testimony?

A. No.

III. Response to ComEd witness Alongi

Q. Did you review the rebuttal testimony of ComEd witness Lawrence Alongi (ComEd Exhibit 49.0)?

A. Yes.

Q. On pages 13 to 15, Mr. Alongi criticizes your recommendation that ComEd should retain the four existing residential subclasses. First, he claims that you are "attempting to divert cost responsibility away from the residential sector" (lines 306-307). Is he correct?

A. No, he is not correct. Mr. Alongi is confusing the allocation of costs among customer classes with the design of rates within a customer class. Nothing in my proposal shifts cost responsibility away from the residential sector. My proposal allocates costs properly because the allocation of costs among customer classes should be based on various physical characteristics of the classes (such as energy demand, number of meters, and so on). In most instances, customer classes are defined based on the characteristics of the class's customers, such as residential, commercial, industrial, or public. Once these

classes are created, then it becomes a matter of intra-class rate design to determine how to fairly recover costs within the class. In ComEd's case, the residential class is highly diverse, including single-family houses, apartments in large multi-family buildings, sprawling estates, and small studio apartments, to name just a few. ComEd's residential class includes customers who use 100 KWH per month and those who use thousands of KWH per month.

With a class that is so diverse, it can be difficult to design rates that accurately reflect the cost of service to different types of customers. In that instance, different rate schedules (what I termed subclasses in my direct testimony) can be used to try to better design rates that reflect cost differences. For many years, ComEd has divided the residential class into four rate schedules, separating single-family from multi-family customers and separating those who use electricity for space heating and those that do not heat with electricity. In the first ComEd case in which I was involved, I successfully argued against ComEd's proposal to consolidate the residential class onto a single rate schedule because we were able to demonstrate that there was a real difference in the cost of serving different types of residential customers.

We face this same issue again because ComEd is proposing to collapse the residential class into two rate schedules (eliminating the heating / non-heating distinction). As I explained in my direct testimony, there is a very real difference in the cost of serving heating and non-heating customers, and that difference should be reflected in the rates paid by those customers.

Mr. Alongi claims that each group of residential customers should be treated as a completely separate customer class, have its demands determined separately in the cost-of-service study, and so on. I suggested that there is really just one residential class and that the different rate schedules for that class are a matter of intra-class rate design. I used as an example the results of ComEd's cost-of-service studies which show an increase in costs allocated to non-residential customers if you move from the current four residential rate schedules to two residential rate schedules. There is no logical reason why costs allocated to non-residential customers should change if the number of residential rate schedules is changed, but that is precisely the result of ComEd's approach.

Contrary to Mr. Alongi's assertion, I am not trying to divert costs away from the residential class. I am simply trying to have the cost-of-service process be logical. Increasing or decreasing the number of residential rate schedules should not have any impact on the cost to serve non-residential customers. My recommended approach to cost-of-service analysis ensures that this occurs; ComEd's approach leads to an illogical result and should be rejected.

Q. Mr. Alongi appears to take issue with your use of the term "subclass" for groups of residential customers. Is this nomenclature important?

A. No, what we call the groups is not important. After I saw Mr. Alongi's objection to my language, and his use of the term "residential sector," I went back to ComEd's tariff. There I found that ComEd uses the term "residential sector" to refer to all residential

customers and then calls each group of residential customers a "class." In my more than 25 years of experience with utility regulation, ComEd is the only utility I can recall that has a tariff dividing customers into "sectors." I was using the more familiar terminology of "class" to refer to what ComEd calls a "sector." And I was using the term "subclass" to refer to the rate schedules within that class or sector.

The salient point is not what we call these groupings of residential customers, but whether the terminology and number of residential rate schedules should affect the allocation of costs to non-residential customers. Mr. Alongi believes it should; I believe it should not.

Q. On page 15, lines 350-355, Mr. Alongi states that your proposal would "reintroduce a complexity" into ComEd's residential rates. Is he correct?

A. No, he is not correct. I am proposing a separate Distribution Facilities Charge ("DFC"), which is the per-KWH charge for distribution, for each residential rate schedule. At the present time, ComEd's tariff already contains a separately stated DFC for each residential rate schedule. For ease of reference, I have attached the relevant pages of ComEd's existing tariff as AG/CUB Exhibit 11.1. Thus, my proposal would not result in any additional complexity to ComEd's tariff.

Q. If the tariff already has a separate DFC for each residential rate schedule, then why does Mr. Alongi claim that you are trying to increase the complexity of the rates?

A. At the present time, when ComEd calculates the DFC rates it divides residential customers into two groups: one for heating customers and one for non-heating customers.

But that has nothing to do with the complexity of the rate schedules, tariffs, or customers' bills. There is no such thing in ComEd's tariff as the "heating" DFC or the "non-heating" DFC. The tariff shows a separate DFC for each of the four residential rate schedules. My proposal does not change that; it simply sets the DFC for each rate schedule in a way that better reflects the cost of serving the customers taking service under that rate schedule.

Q. Mr. Alongi spends all of page 16 responding to your testimony that ComEd's rate design would result in excessive revenues from residential heating customers. Does he address your concerns?

A. No. Mr. Alongi never mentions the cost of service in his response. He only points out that ComEd is proposing a lower rate increase for heating customers than it is proposing for non-heating customers. But he fails to mention that ComEd's own cost-of-service study shows that residential heating customers currently pay rates that exceed ComEd's proposed cost of service. When I testified that residential heating customers would pay excessive rates under ComEd's proposal, I referred specifically to the cost of serving those customers. I did not mean those customers were receiving a higher percentage rate increase than other residential customers, but that they would pay rates that exceed their cost of service by millions of dollars per year.

Q. Does anything in Mr. Alongi's testimony cause you to change the conclusions and recommendations in your direct testimony?

A. No.

IV. Response to ComEd Witness Garcia, CG Witness Baudino, and IIEC Witness Stowe

Q. Did you review the rebuttal testimony of ComEd witness Robert Garcia (ComEd Exhibit 50.0)?

A. Yes.

Q. Did you also review the direct testimony filed by Commercial Group witness Richard Baudino (CG Exhibit 1.0) and Illinois Industrial Energy Consumers ("IIEC") witness David Stowe (IIEC Exhibit 3.0)?

A. Yes.

Q. On pages 5-6 of ComEd Exhibit 50.0, Mr. Garcia states that ComEd agrees with IIEC witness Stowe and CG witness Baudino that primary lines and substations should be allocated using a non-coincident peak (NCP) factor rather than a coincident peak (CP) factor. How do you respond?

A. Mr. Garcia and Mr. Baudino recognize that the Commission decided this issue in the recently concluded rate design investigation for ComEd (Docket No. 08-0532). In that case, the Commission determined that a CP allocation factor was proper for these facilities. Mr. Garcia states that the parties are now asking the Commission to reconsider that finding. In that order, the Commission specifically stated: "the following decisions are final and should be reflected in the ECOSS for consideration in any subsequent action in the Company's next rate case." One of those specific final decisions was item (f): "the allocation of costs to substations and primary lines should be made on a coincident peak

basis." Docket No. 08-0532, Order of April 21, 2010, p. 84. While the IIEC and Commercial Group are free to request the Commission to revisit the issue in this docket, I have seen nothing in the evidence presented that leads me to believe that the Commission's recent decision in the 08-0532 docket was in error.

Q. Mr. Stowe quotes from the NARUC Cost Allocation Manual to support his position (IIEC Exhibit 3.0, p. 24). Do you have any concerns with the way in which he cited that publication?

A. Yes, I do. Mr. Stowe left out an important portion of the paragraph from which he quotes. The paragraph begins at the bottom of page 96 and continues onto page 97 of the manual. Specifically, he left out a few sentences from the paragraph. I have attached pages 96 and 97 of the manual as AG/CUB Exhibit 11.2 so that the entire paragraph can be read in context.

When the paragraph is read as a whole, it becomes clear that the author of this paragraph did not clearly distinguish between NCP and CP. Rather, the author refers to NCP, "customer-class peaks," and "individual customer maximum demands." When the entire paragraph is read, it seems to me that the intention is to determine how much diversity exists in the load. The closer you get to the customer, the less diversity is present (that is, the NCP becomes more representative of the load placed on the facilities). But as you move further from the customer – that is, out to the primary voltage level – diversity becomes more important, meaning that different customer groups will peak at different times and the facilities can be sized to capture the benefit of

that diversity. Thus, the manual states: "The load diversity at distribution substations and primary feeders is usually high." The next sentence states: "For this reason, customer-class peaks are normally used for the allocation of these facilities." The manual does not say which customer class peaks are used: coincident or non-coincident peaks. But to me, the intention seems clear: because there is more diversity at the primary level, facilities are designed to capture that diversity; and that means that a coincident peak allocator better reflects cost causation.

Q. What do you conclude?

A. I conclude that there was a reasonable basis for the Commission to conclude that primary lines and substations should be allocated using a CP allocator. The Commission made that determination in April 2010 for ComEd with roughly the same parties participating. There is no reason for the Commission to change that decision in this case.

Q. Do ComEd's revised cost-of-service studies in ComEd Exhibits 51.1, 51.2, and 51.3 continue to use the CP allocator for primary lines and substations, or do they use the NCP allocator recommended by Messrs. Stowe, Baudino, and Garcia?

A. ComEd's revised studies prepared by Mr. Heintz continue to use the CP allocator that was ordered by the Commission in the rate design investigation. This can be seen, for example, on Schedule 2a, page 1, lines 5 and 7 of each study where Shared Distribution Substations and Shared Distribution Lines are allocated using the CP<69 KV allocation factor, which is based on coincident peak demands. Thus, ComEd's revised studies

continue to comply with the Commission's order and there should be no further changes to those studies.

Q. Does the cost-of-service study prepared by CG witness Baudino also use the CP allocator for primary lines and substations?

A. Yes, Mr. Baudino makes this clear on page 22 (lines 393-394) of his testimony. So even though he recommended using an NCP allocator, he did not do so when he prepared his cost study.

Q. Does Mr. Stowe's cost-of-service study also continue to use the CP allocator for these facilities?

A. No, it does not. Mr. Stowe modified the study to allocate these facilities using the NCP allocator that the Commission rejected (see IIEC Exhibit 3.0, p. 25, lines 567-568). For that reason, Mr. Stowe's study should not be used by the Commission.

V. Response to Revenue Decoupling Testimony

Q. Have you reviewed the testimony of witnesses that promote the idea of revenue decoupling?

A. Yes, I have reviewed the rebuttal testimony of ComEd witness Lowry (ComEd Exhibit 47.0) along with his decoupling report (ComEd Exhibit 47.2), the direct testimony NRDC witness McDermott (NRDC Exhibit 1.0), and the direct testimony of NRDC witness Cavanagh (NRDC Exhibit 2.0).

Q. Before reading his testimony, were you familiar with the work of NRDC and Mr. Cavanagh on utility decoupling issues?

A. Yes, I was. I have been a member of NRDC since the late 1970s and I have closely followed its work on utility issues for quite some time. I strongly support NRDC's overall goals and I have remained a member of the organization for more than 30 years.

Q. Do you support the approach of NRDC and Mr. Cavanagh to improving the efficiency of electricity consumption?

A. No, I do not. While I am proud to be a member of NRDC, I do not agree with them on every issue – and this is one where I must disagree. I believe it is possible for environmental protection and the wise use of our resources to be consistent with the financial interests of consumers. Unfortunately, NRDC's decoupling proposal fails to achieve that end. Instead, the NRDC proposal would protect ComEd's revenue stream at the expense of consumers, with no indication that such an extreme measure would result in any increased investment in energy efficiency. I cannot recommend the adoption of that approach for two reasons: (1) it is inconsistent with sound regulatory policies that have been developed over many decades; and (2) there is a better way.

Q. Starting on page 4 of his testimony, Mr. Cavanagh calls the current regulatory framework "dysfunctional" and argues that changes in ComEd's residential distribution rates could make ComEd more responsive to environmental concerns. Do you agree?

A. No, I do not agree. The alleged "dysfunction" is that the residential rate structure does not encourage ComEd to help customers reduce electricity consumption. That is true, but it is not evidence of any failure to perform by the ratemaking process. On the contrary, consumers expect to pay for products and services they receive. People do not expect to pay retroactive surcharges when they buy less of a product than someone expected them to buy. The NRDC decoupling proposal would have ratepayers doing just that. And they certainly do not expect to be billed later because the business selling them a product was less profitable than anticipated.

Mr. Cavanagh's proposal fails to recognize the central tenets of utility regulation. We attempt to regulate in a manner that mimics how prices would be set if there were a competitive market for the monopolistic service being regulated. The purpose of that regulation is to protect consumers from the monopolist – ensuring that prices bear a reasonable relationship to the value of the service to the consumer, and that the service is provided in a manner that is safe and reliable.

In the competitive market, it is rare for consumers to pay fixed charges just for the privilege of being a customer. There are exceptions, such as Sam's Club, when the consumer may agree to pay a very small fixed charge in anticipation of paying lower

prices on each product purchased. But as a general rule, we pay for products and services if and when we decide to buy them; if we don't use them, we don't pay for them.

And make no mistake, many of those businesses have very high fixed costs. Retail chains have tremendous overhead in buildings, technology, trucks, rail cars, and distribution networks, not to mention inventory and people. Service industries have office buildings, communications and computer networks, investments in intellectual capital, and so on.

In a competitive market, businesses recover their fixed costs by selling things that consumers want. They do not recover fixed costs by charging consumers even when the consumer buys nothing. They simply cannot do it – consumers would go to the competitor down the street (or anywhere in the world on the Internet) without having to pay a fixed fee for the "privilege" of being a customer.

Q. In a competitive market, what happens when a business cannot adequately recover its fixed costs through the sale of products and services to consumers?

A. If that occurs, then the business must adjust to the new reality. The business needs to modify its costs of doing business, make its products and services more attractive to consumers, or risk going out of business.

Q. Are those options available to utilities?

A. Yes, they are. Like any other business, utilities must continue to adjust to the needs of consumers. If consumers use less electricity than they used to, then utilities need to adjust their cost structures and expectations about profit levels. If they fail to do so, then

they run the risk of bankruptcy or having to sell their business at a discount to a provider that can better meet the needs of consumers. There are utilities restructuring in bankruptcy courts right now – it is not a pleasant occurrence, but it happens when a utility cannot meet the needs of the public or adjust to changes in consumer preferences. In the regulated world, one of the classic examples of this occurred with street railway companies that found themselves unable to compete with newer forms of transportation. When regulators refused to continue to raise prices (because they understood that the consumers would not pay the higher prices and demand would continue to drop), the companies went out of business or found ways to restructure and reduce their costs.

Q. What does all of this have to do with NRDC's approach to decoupling?

A. NRDC's approach to decoupling is premised on the importance of preserving the utility's revenues in the face of (either real or hypothesized) declining demand for electricity. I absolutely reject this as an appropriate focus of regulation. The purpose of regulation is to protect consumers from the unfettered market power of monopolists; not to protect the revenue stream or profit levels of those monopolists.

Q. Does that mean that ComEd might go out of business without decoupling?

A. I consider that to be very unlikely and ComEd has never much such a claim. ComEd has faced numerous challenges over the years and has managed to survive and be a very profitable company. I expect that it would adjust to the new reality of lower per-customer energy consumption and find ways to continue to thrive. But if it doesn't, that would not be a failure of regulation. It would be a failure of the utility's management.

Regulators should not insulate management or stockholders from such a failure of judgment, and consumers certainly should not be required to pay higher prices in order to protect management from such a failure.

Q. Mr. Cavanagh states that the current ratemaking process is keeping consumers from investing in cost-effective energy efficiency. Would decoupling solve that problem?

A. No, decoupling would not solve that problem. Mr. Cavanagh has been saying the same thing for many years and, while progress has been made, there are still significant structural barriers to the implementation of many forms of energy efficiency. Among the barriers that exist in utility-sponsored energy efficiency programs are lack of knowledge (consumers don't know what they can do), lack of trust (they're told something by an entity they don't trust to provide unbiased information), lack of funds (they can't afford to make the investment), poor experience with supposedly long-lived investments (such as the washing machine that breaks after four years or the CFL bulb that lasts only one year instead of the five years promised), and lack of control (they don't own the premises or the appliance that could be made more efficient). Decoupling would not solve these problems.

Consumers as a group are not irrational, though we all occasionally do something that is not too smart. If consumers are requiring paybacks of three years or less on energy-efficiency investments it is for a good reason. It may be that they don't expect to stay in their homes much longer than that and they don't believe the new owner would

place a significant value on the investment. It may be that they have a much higher cost of capital than economists like to admit (why else would people willingly have credit cards that charge 25% interest?). It may be that they are afraid to spend their savings on long-term investments because they don't know if they will have a job next month or next year.

I also do not believe that consumers will ever trust utilities to provide accurate, unbiased information about ways to save electricity. This is not meant to demean ComEd or any of its employees. People simply do not perceive the person who is trying to sell them something as being an honest source of information about ways to buy less of it or to save money doing it. You are much more likely to believe your neighbor about the cost savings from installing CFL bulbs than you are to believe the utility that you perceive as making money from selling electricity (or the hardware store that makes money from selling you the bulbs). One could speculate about the difference in our energy consumption if all of the money spent on trying to get utilities to encourage lower consumption actually had been given to organizations unaffiliated with utilities who could provide unbiased information about, and funding for, energy conservation.

Q. Are these "market failures" as Mr. Cavanagh calls them on page 11 of his testimony?

A. No, they are not "failures" of anything. They are simply part of reality. Consumers have many demands on their time and money; they are skeptical; they have high costs of capital; and they are uncertain about the costs and benefits of new products or appliances

with which they may be unfamiliar. These problems cannot be "solved" by assuring ComEd's revenue stream.

Q. Hasn't decoupling worked in other places?

A. Decoupling has been implemented in other places. It is easy to measure the effect of decoupling on utilities' revenues and consumers' bills. It is much more difficult to measure the effect of decoupling on energy consumption because we don't know what consumers would have done otherwise. What is clear, however, is that Mr. Cavanagh is making the same arguments today that he has been making for the past 20 years or more – and there is still precious little evidence that decoupling accomplishes anything of substance for the environment or for consumers.

Q. Did you perform any analysis to attempt to determine the effect of decoupling on residential energy consumption?

A. Yes, I did a very high-level analysis to try to determine if decoupling was having an appreciable effect on residential energy consumption. Using state-level data from the U.S. Energy Information Administration and the U.S. Census Bureau, I looked at statewide residential electricity consumption per housing unit in each state from 2000 through 2009. The number of KWH per housing unit is not particularly meaningful because there are such vast differences in climate, heating fuel, and housing stock from one state to another. For example, states with large numbers of housing units in multi-family buildings, fewer people per household, and little electricity usage for heating (such as New York and the District of Columbia) have much lower electricity consumption per

housing unit than states with relatively few multi-family buildings, more people per housing unit, and higher air conditioning loads (such as Alabama and Georgia).

What we can compare among states, however, is the percentage change in electricity consumption from one year to the next, and over the entire 10-year period. On AG/CUB Exhibit 11.3, I show the results of my analysis. In simple terms, I conclude that there is no meaningful difference between the change in electricity consumption per housing unit in states with electric decoupling and those without electric decoupling. In fact, the states with decoupling experienced a slightly higher increase in average electricity consumption than did the states without decoupling.

Overall, however, electricity consumption went up in some years and down in others – most likely as a result of economic and weather conditions, rather than as a result of the particular ratemaking method used for electric utilities. On average, over the entire 10-year period, average consumption increased by 2.8% (an average of 0.3% per year) in states that have adopted decoupling and by 1.6% (an average of 0.2% per year) in states that have not adopted decoupling. By way of comparison, I also show the results for Illinois, which falls right in the middle with an increase of 2.3% (an annual average of less than 0.3% per year) over the entire 10-year period.

I would caution that I term this a high-level analysis because there are a number of factors that are not explicitly considered, including weather, economic conditions, heating fuel sources, appliance saturation, when a state adopted decoupling, whether decoupling was adopted for some or all utilities in the state, and so on. This is not a rigorous statistical analysis; I did this only to try to get a rough indication of whether

decoupling might be having a measurable impact on electricity consumption at the statewide level. From this very rough analysis, I cannot conclude that decoupling is having any impact on residential electricity consumption.

Q. Do the testimony and report prepared for ComEd by Mr. Lowry (ComEd Exhibits 47.0 and 47.2, respectively) provide the type of information you found lacking in NRDC's testimony?

A. No, they do not. There is no information in Mr. Lowry's lengthy presentation that discusses the effect of any of the various decoupling methods on consumer behavior and residential energy consumption. His focus is on the effect on the alleged incentives or disincentives to utilities; not on the impact on consumers. As such, I do not find his presentation to be particularly relevant to the central issues: whether decoupling would improve consumer well-being, reduce residential energy consumption, or improve the environment.

Q. Does Mr. Lowry's information about states that spend a lot on demand-side management (DSM) programs show that such spending is achieving improved consumer well-being, reduced residential energy consumption, or an improved environment?

A. No, there is no such information in Mr. Lowry's documentation. I replicated my rough analysis of decoupling states (described above and in AG/CUB Exhibit 11.3) for the high-DSM-spending states in Mr. Lowry's exhibit. Specifically, I compared residential electricity consumption per housing unit in the states that each spent more than ComEd

on DSM in 2009, as shown in ComEd Exhibit 47.2, p. 46. I then compared the annual changes in energy consumption per housing unit in higher-spending states to those in lower-spending states. On AG/CUB Exhibit 11.4, I show the results of my analysis. In simple terms, I conclude that there is no meaningful difference between the change in electricity consumption per housing unit in states with higher spending on DSM and those with lower spending on DSM. In fact, the states with higher spending experienced a slightly higher increase in average electricity consumption than did the states with lower spending.

Overall, however, as was the case with decoupling states, electricity consumption went up in some years and down in others – most likely as a result of economic and weather conditions, rather than as a result of the amount spent on DSM programs. On average, over the entire 10-year period, average consumption increased by 3.2% (an average of 0.3% per year) in states that have higher DSM spending and by 1.6% (an average of 0.2% per year) in states that have lower spending per capita. By way of comparison, I also show the results for Illinois, which again falls in the middle with an increase of 2.3% (an annual average of less than 0.3% per year) over the entire 10-year period.

Q. What does your analysis tell you about Mr. Cavanagh's proposal for decoupling?

A. It tells me that we need to learn much more about the actual benefits (if any) of decoupling for the environment and for consumers. I would emphasize that these are the relevant considerations; not whether decoupling affects rates or the utility's revenues and

profits. The purpose of decoupling is to affect residential energy consumption; if it cannot be shown that it accomplishes that goal, then there is no reason to pursue it.

According to an article promoting decoupling by one of Mr. Cavanagh's colleagues at NRDC, electric decoupling has been used in California since the mid-1980s.[3] The article, published in 2001, does not contain any information about the actual impact of decoupling on residential energy consumption in California. It mentions some reductions in overall energy demand in Oregon (which started decoupling in 1992), but it notes: "transformation in performance was not entirely the result of decoupling" (the article does not explain the other factors, how much of the reduction was residential, or how much of a role decoupling had on the results). Instead of talking about changes in consumer behavior, the article focuses on rate impacts and the incentives given to utilities by decoupling.

Similarly, a manual published by Lawrence Berkley National Laboratory in 1994, with the title "The Theory and Practice of Decoupling" focuses on the ratemaking process and the alleged incentives and disincentives conveyed to utilities by ratemaking policies. Even though that publication was written more than 10 years after California started decoupling, there is no mention of the actual impact of decoupling on residential energy consumption or consumer behavior. Again I must question whether there is any evidence that this decades-long experiment actually works.

[3] Sheryl Carter, "Breaking The Consumption Habit: Ratemaking for Efficient Resource Decisions," *Electricity Journal* (Dec. 2001), pp. 66-74.

The pro-decoupling witnesses in this case have not presented any hard evidence that decoupling accomplishes something for the environment, that it changes consumer behavior, or that it enhances consumer well-being. There are theories about how it could affect the energy consumption behavior of consumers, but there is no evidence that it actually has done so in any of the states where decoupling has been tried. Given my rough analysis indicating the lack of any apparent relationship between the adoption of decoupling in states and changes in energy consumption in those states, as well as all of the other problems created by decoupling, I recommend that the Commission reject decoupling as an untested theory that has not been shown to have any practical effect on energy consumption or consumer behavior.

Q. But isn't decoupling likely to increase ComEd's investment in energy efficiency initiatives?

A. No, I don't believe that to be the case. I am advised by counsel that there is an Illinois statute that requires ComEd to make certain expenditures on energy efficiency and that there is a limit on the amount of such costs that ComEd can recover from customers. To the best of my knowledge, no one has indicated that ComEd would spend more with decoupling than it would without decoupling, or that its programs would have a greater impact on consumer behavior if there is decoupling than if there is no decoupling. Once again we are talking about an untested theory – and in this instance, a theory that appears to be meaningless in terms of accomplishing the state's statutory energy efficiency goals.

Q. NRDC witness McDermott discusses the goals for decoupling (NRDC Exhibit 1.0, p. 3). Do you agree with his statement of goals?

A. No, I do not. In fact, I find his statement of goals to be quite telling. According to Mr. McDermott, the goal of decoupling is not to affect consumer behavior or to actually reduce energy consumption through conservation, but to "provide[] utilities with a fair opportunity to recover investment costs in the face of uncertain load growth …" I appreciate Mr. McDermott's frankness – that the goal of decoupling is to ensure utility profit levels – but I find his goal to be completely contrary to the purpose of utility regulation. Where is the mention of protecting consumers? Why is there no goal to affect consumers' energy-consuming behavior? Where is the correlation between the protection of utility profit levels and the improvement of consumer well-being?

Q. Beginning on page 6, Mr. McDermott talks at length about various court cases and legal requirements. Do you agree with his legal analysis?

A. No, I do not agree with his legal analysis. First, I find it interesting that this legal analysis is contained in the testimony of an economist, while NRDC's other witness – who is an attorney – does not talk about the legal cases. Second, I should note while I am an attorney based in Pennsylvania with an active regulatory practice, I am not licensed to practice in Illinois and I am not giving a legal opinion about Illinois law on behalf of the Attorney General or the Citizens Utility Board.

With that understanding, I am troubled by Mr. McDermott's rather cavalier treatment of the recent decision from an Illinois appellate court that expresses clear

limitations on the Commission's ability to use automatic rate adjustment mechanisms. Mr. McDermott tries to distinguish that case because it dealt with "expenses" and not "revenues." But he fails to explain why this distinction supports his point of view. The fact that the Court established the boundaries for recoverable *expenses* – not revenues – through a rider is, in my view, a critical point that argues *against* approving a decoupling rider.

After a discussion of previous Illinois cases that examined the legality of riders as cost recovery mechanisms, the Court specifically stated:

> From this line of cases, we glean a guiding principle for testing a rider's validity; the Commission has discretion to approve a utility's proposed rider mechanism to recover a particular cost if (1) the cost is imposed upon the utility by an external circumstance over which the utility has no control and (2) the cost does not affect the utility's revenue requirement. In other words, a rider is appropriate only if the utility cannot influence the cost (*Citizens Utility Board*, 166 Ill.2d at 138 ("a rider mechanism is effective and appropriate for cost recovery when a utility is faced with unexpected, volatile, or fluctuating expenses")) and the expense is a pass-through item that does not change other expenses or increase income (*Citizen's Utility Board*, 166 Ill.2d at 138 (a valid rider has no "direct impact on the utility's rate of return")).
>
> Our test reconciles the approval of diverse riders, including (1) a rider to recoup increases in the wholesale cost of natural gas, where the cost was set by a federal agency (*City of Chicago I*, 13 Ill.2d at 614); (2) a rider to recoup expenses for government-mandated environmental remediation (*Citizens Utility Board*, 166 Ill.2d at 138-139; *CILCO*, 255 Ill.App.3d at 885); and (3) a rider to recoup a franchise fee that a municipality charges the utility (*City of Chicago II*, 281 Ill.App.3d at 628-629). In each instance, the expense was an externality imposed on the utility, and the expense was passed directly on to the consumer without affecting the utility's return on investment.

ComEd v. Illinois Commerce Comm'n, 2010 Ill. App. LEXIS 1057, *54 (emphasis added).

To my reading, the court held that Illinois law severely constrains the Commission's ability to use automatic rate adjustment mechanisms to the recovery of certain expenses – not lost revenues – in instances where the expense was an externality imposed on the utility, and the recovery of which does not affect the utility's level of profit (such as the pass-through of municipal franchise fees).

There is no question in my mind that NRDC's proposed reconciliation of revenues is not an "externality imposed on the utility" and that it directly affects ComEd's return on investment. Indeed, Mr. McDermott states that this is the very goal of decoupling. Moreover, even ComEd witness Hemphill recognizes that there are serious questions whether the Illinois court's recent decision would permit ComEd to have the type of decoupling rider that NRDC recommends. ComEd Exhibit 46.0, 24:554-557.

Q. Mr. McDermott also discusses the "end result test" in the *Hope Natural Gas* case. Do you agree with his interpretation of the impact of that decision on regulatory policy.

A. No, I do not. Mr. McDermott opines that the *Hope Natural Gas* case gives regulators *carte blanche* in developing new ratemaking mechanisms as long as the result meets "the dual obligation to customers and investors." He could not be more wrong.

Initially, it must be understood that the end result test in *Hope* is a standard of judicial review. It defines a standard to be used by a court to determine whether it should review the decision of the regulatory commission. In essence, the court stated that if the utility cannot show that its property was confiscated as a result of the regulator's actions, then the court would not hear the case. That does not give the commission free reign to do whatever it pleases. It simply tells aggrieved parties not to bother the court with minor matters.

The "end result test" is similar in that regard to the "substantial evidence" test or the "arbitrary and capricious" standard of judicial review of administrative actions. If those threshold questions cannot be passed – if it cannot be shown that the regulator acted contrary to the evidence or that it acted in a manner that violated the law or was arbitrary – then the court will not overturn the regulator's actions. Again, that does not authorize the regulator to do whatever it wants; it only says that judicial resources are limited and that courts do not want to hear cases that come down to honest judgment calls about the evidence or public policy.

In fact, regulators most assuredly do not have free reign to adopt novel ratemaking methods. Rather, the Commission is a creature of the legislature performing a legislative function (rate-setting) and the Commission is constrained by the laws enacted by that legislature. The Illinois court recently reviewed at length the law in Illinois about automatic rate adjustments and held that the Commission does not have free rein to adopt any type of rate adjustment mechanism it pleases.

Q. What do you conclude about the decoupling proposals in this case?

A. I conclude that there is no evidence that decoupling – whether through an automatic rate adjustment as proposed by NRDC or through a drastic change in the rate structure as proposed by ComEd – would have any effect on consumer behavior, consumer well-being, or environmental protection. The only discernible effect would be to insulate ComEd from the normal business risk of customers buying less of its product than ComEd would prefer. That is not a valid reason to either drastically change the residential rate structure (requiring low-use customers to subsidize high-use customers) or to adopt an automatic rate adjustment designed to protect ComEd's investors without regard to the benefits to consumers.

Q. What do you recommend?

A. I recommend that the Commission reject ComEd's proposal to greatly increase the customer charge and decrease consumption-related charges. I also recommend that the Commission reject NRDC's proposal to adopt an automatic adjustment mechanism to protect ComEd's investors at the expense of consumers.

Q. Does this conclude your rebuttal testimony?

A. Yes.